DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023756 Address: 333 Burma Road **Date Inspected:** 19-May-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: Pat Swain **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

This QA Inspector was informed by Lead QA Inspector Bill Levell that QC personnel would be re-inspecting an Ultrasonic Testing (UT) indication at 7W/8W-A1 and requested that is QA Inspector monitor the UT inspection.

This QA Inspector met with QC Supervisor Leonard Cross and QC Inspector Pat Swain at 7W/8W-A1 at approximately 1300 hours this date. This QA Inspector was informed by QC Supervisor Leonard Cross the area for re-inspection was located at Y-2480, X-0 and was approximately 20 mm in length.

This QA Inspector observed the weld at this location had been painted with a red primer. QC Inspector Pat Swain laid out the location and QC Supervisor Leonard Cross started performing the UT inspection. Shortly after starting the UT scan QC Supervisor Leonard Cross stated he observed an indication, after maximizing the signal and performing the required calculations this QA Inspector was informed the UT signal produced a +8 indication rating, which is Class A flaw and not acceptable regardless of the length. QC Supervisor Leonard Cross stated the defect was approximately 5 mm deep, 20 mm long and was located at the centerline of the weld.

QC Supervisor Leonard Cross then asked QC Inspector Pat Swain to scan the area to see if the same results could be obtained. After several minutes QC Inspector Pat Swain confirmed the defect was located at this same place

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and that he obtained the same defect rating.

This QA Inspector performed an information only UT scan of the area and obtained basically the same results as noted above; a Class A defect with an indication rating of +8, approximately 5 mm deep and 20 mm long. Note the indication ratings obtained were done so through a surface painted with a primer, which usually impedes the UT signals resulting in a less sensitive inspection.

At Pier#7 this date, this QA Inspector received the following Weekly Welding Reports submittal; ABF-Sub-001536 Rev-55. This QA Inspector performed a review of the documents to determine compliance with the Welding Quality Control Plan (WQCP) submitted by the contractor, compliance with the applicable contract requirements and to determine if any Quality Control (QC) documents were missing. This QA Inspector documented the findings on a weld specific tracking log and informed QA Inspector Bill Levell of the findings. This QA Inspector placed the reviewed documents in the applicable files.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer